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EXAMINER

MULLIS, JEFFREY C

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte XIAORONG WANG and VICTOR J. FOLTZ

Appeal 2010-010334
Application 10/791,049
Technology Center 1700

Before DONALD E. ADAMS, JEFFREY N. FREDMAN, and
STEPHEN WALSH, *Administrative Patent Judges*.

ADAMS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal under 35 U.S.C. § 134 involves claims 10-17, 23-25, 27-31, and 34-37 (App. Br. 2).¹ We have jurisdiction under 35 U.S.C. § 6(b).

STATEMENT OF THE CASE

The claims are directed to a polymer nanoparticle composition. Claims 10, 24, and 27 are representative and are reproduced in the “CLAIMS APPENDIX” of Appellants’ Brief (App. Br. 21 and 23-24).

¹ Pending claims 1-9, 18-22, 32, and 33 have been withdrawn from consideration (App. Br. 2). “Claim 26 is cancelled” (*id.*).

Claims 10-17, 23-25, 27-31, and 34-37 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Krom.²

We affirm the rejection of claims 24, 25, 27-31, and 35-37. We reverse the rejection of claims 10-17, 23, and 34.

Claims 10-17, 23, and 34:

ISSUE

Does the preponderance of evidence on this record support the Examiner's finding that Krom teaches the claimed invention?

ANALYSIS

We find that the preponderance of evidence on this record falls in favor of Appellants for the reasons set forth in the Appeal Brief, Reply Brief, and Wang Declaration.³ Specifically, we agree with Appellants' contention that Krom fails to teach "a nanoparticle with the monoblock and di-block polymer chains as required by the claims" (Reply Br. 5; *see also* App. Br. 5-10 and Reply Br. 5-6).

CONCLUSION OF LAW

The preponderance of evidence on this record fails to support the Examiner's finding that Krom teaches the claimed invention. The rejection of claims 10-17, 23, and 34 under 35 U.S.C. § 102(b) as being anticipated by Krom is reversed.

² Krom et al., US 6,437,050 B1, issued August 20, 2002.

³ Executed June 27, 2008.

Claims 24, 25, 27-31, and 35-37:

ISSUE

Does the preponderance of evidence on this record support the Examiner's finding that Krom teaches the claimed invention?

ANALYSIS

Appellants provide separate arguments for the following groups of claims: I. Claims 24, 25, 28-31, and 35; II. Claim 27; and III. Claims 36 and 37. Claims 24, 27, and 37 are representative.

Claim 24:

Appellants contend that Krom fails to teach the polydispersity limitation set forth in claim 24 (App. Br. 12). We are not persuaded.

Claim 24 requires, *inter alia*, that the “nanoparticles have a size distribution that is polymodal with a polydispersity index between *about* 1.5 and about 10” (Claim 24 (emphasis added)). Appellants admit that Krom teaches nanoparticles having “a polydispersity of less than *about* 1.3” (App. Br. 10 (emphasis added)). Thus, the issue distills down to the term “about.” More specifically, the issue is whether a person of ordinary skill in this art would reasonably construe the term *about* to enlarge the range of Krom's polydispersity to read on the range required by Appellants' claim 24 or, alternatively, reduce the polydispersity range of Appellants' claim 24 to read on Krom's polydispersity range?

Appellants' representative contends that “the term ‘about’ should not be construed so broadly in this case, because the polydispersity index represents a ratio of weight-average molecular weight to number-average molecular weight” (App. Br. 10-11). Appellants' representative fails to identify an evidentiary basis on this record to support this argument or line

of reasoning. *See In re Geisler*, 116 F.3d 1465, 1471 (Fed. Cir. 1997) (argument by counsel cannot take the place of evidence on the record). Nevertheless, Appellants' representative manipulates the numbers 1.5 and 1.3 and arrives at the conclusion that there is "a 20% difference in the ratio" required by claim 24 and that taught by Krom (App. Br. 11). We are not persuaded.

The issue is not how much of a difference exists between the precise, absolute, numbers 1.3 and 1.5. To the contrary, the numbers *about* 1.3 and *about* 1.5 are at issue. *There may be no difference at all* between Krom's polydispersity of *about* 1.3 and the polydispersity of *about* 1.5 required by Appellants' claim 24. The question then is what does the evidence on this record establish?

The Examiner has provided an evidentiary document, Krom, which teaches a polymer nanoparticle composition that appears to be identical to that claimed by Appellants. Absent evidence to the contrary we find that Krom's polydispersity of about 1.3 reads on Appellants' polydispersity of about 1.5. Accordingly, the Examiner has established a prima facie case of anticipation on this record. Therefore, the evidentiary burden was properly shifted to Appellants to establish that the claimed polydispersity falls outside of that taught by Krom. *In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990) ("[W]hen the PTO shows sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not."); *see also In re Best*, 562 F.2d 1252, 1255 (CCPA 1977). On this record, Appellants failed to provide an evidentiary basis to support a conclusion that Krom fails to teach a polymer nanoparticle composition within the scope of claim 24.

Claim 27:

Claim 27 depends from and further limits the polydispersity index of the composition set forth in claim 24 to be “between 1.5 and 8.0” (Claim 27). Appellants’ contend that claim 27 “is slightly narrower than the claim it depends on, claim 24, in part because it does not use the ‘about’ modifier for the range. Accordingly, Krom’s maximum disclosed range of about 1.3 is further away from the range required by this claim, and does not anticipate this claim” (App. Br. 12-13). While we would agree with Appellants that claim 27 refers to a precise, absolute, number (e.g., 1.5), there is no persuasive evidence or argument on this record to support a conclusion that Krom’s polydispersity value of *about* 1.3 does not read on a polydispersity value of 1.5. Accordingly, for the reasons set forth above, we are not persuaded by Appellants’ contentions to the contrary.

Claim 37:

Claim 37 depends from claim 24. Unlike claim 10, claim 24 does not require the polymer nanoparticle composition to include mono-block and diblock polymer chains (*Cf.* Claims 10 and 24). Therefore, we find no antecedent basis in claim 24 to support the recitation in claim 37 of “the” mono-block and diblock polymer chains. For the foregoing reason we are not persuaded by Appellants’ contention regarding claim 37.

CONCLUSION OF LAW

The preponderance of evidence on this supports the Examiner’s finding that Krom teaches the claimed invention. The rejection of claims 24, 27, and 37 under 35 U.S.C. § 102(b) as being anticipated by Krom is affirmed. Because they are not separately argued, claims 25, 28-31, and 35 fall together with claim 24; and claim 36 falls together with claim 37.

Appeal 2010-010334
Application 10/791,049

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED-IN-PART

DEA

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